12. (twice amended) A protease substrate comprising a flexible peptide and including two fluorescence dye groups drawn together by free energy attractions so as to self-quench fluorescence of the dye groups by intramolecular dimerization or stacking.

21. (twice amended) An assay method of detecting a microorganism, which microorganism produces a characteristic enzyme, comprising:

a) providing an enzyme substrate specific for said characteristic enzyme produced by said microorganism comprising two or more fluorescence dye groups bound to a flexible peptide comprising one or more bonds cleavable by said characteristic enzyme, the dye groups being drawn together by free energy attractions such that the dye groups self-quench their fluorescence by dye dimerization or stacking, and

b) cleaving one or more of said cleavable bonds of the peptide by said characteristic enzyme to release the fluorescence dye groups from dye dimerization or stacking, thereby producing an increase in fluorescence intensity which indicates the presence of said microorganism.

Please cancel claim 3.

Remarks

Claims 1-21 are pending in the application. Claims 1- 19 and 21 are rejected. Claim 20 is objected to. Claims 1, 12, and 21 are amended. The claims are amended for clarity purposes only. The amendments do not narrow the claims and are not necessary to overcome the asserted rejections.

Rejections

35 U.S.C. 102 (b) – Garman with support from Rohatgi, Wei, and Tsien

Claims 1, 3-4, 6-8, 10, 12-13, and 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Garman et al. (GB 2278356) (hereinafter "Garman") with support from Rohatgi et al. (J. Phys. Chem. (6/1966) vol. 70 (6), pages 1695-1701) (hereinafter "Rohatgi"), Wei et al. (Anal. Chem (5/1994), vol. 66 (9), pages 1500-1506) (hereinafter "Wei"), and Tsien (U.S. Pat. No. 5,741,657) (hereafter "Tsien").

The Examiner essentially states that: